-39-

WE CLAIM:

1. A compound of formula I:

$$R^{2}$$

$$N-(CH_{2})_{m}$$

$$RO$$

$$I;$$

5 wherein:

m and r are independently 0, 1 or 2;

R is H, $SO_2(n-C_4-C_6 \text{ alkyl})$ or COR^3 ;

 R^0 is independently at each occurrence OH, CF3, halo, C1-C6 alkyl or C1-C6 alkoxy;

10 R^1 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^4R^{4a} , CF_3 or CH_2CF_3 ;

 R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

 R^3 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^6R^{6a} , phenoxy, or phenyl optionally substituted with halo;

 R^4 is C_1 - C_6 alkyl or phenyl;

 R^{4a} , R^6 and R^{6a} are independently at each occurrence H, C_1 - C_6 alkyl or phenyl;

X is O or NR^7 ;

Y is O or S; and

R⁷ is H or C₁-C₆ alkyl; or a pharmaceutical acid addition salt thereof.

- 2. The compound of claim 1 wherein X and Y are O and m is 1 or 2.
- 3. The compound of claim 1 or 2 wherein r is 0.

20

15

WO 2005/073244 PCT/US2005/000019

-40-

- 4. The compound of any one of claims 1-3 wherein R is H or COR^3 and R^3 is C_1 - C_4 alkyl, NHCH₃ or phenyl.
- 5. The compound of any one of claims 1-4 wherein R is H and m is 1.

5

6. The compound of any one of claims 1-5 wherein the SO_2R^1 moiety is at the 4-position.

10

- 7. The compound of any one of claims 1-6 wherein R^1 is C_1 - C_4 alkyl, CF_3 or NR^4R^{4a} and R^4 is C_1 - C_4 alkyl and R^{4a} is H or C_1 - C_4 alkyl.
- 8. The compound of any one of claims 1-7 wherein \mathbb{R}^1 is methyl, ethyl, cyclopropyl, CF₃, NHCH₃ or N(CH₃)₂.

15

9. A compound selected from the group consisting of:

WO 2005/073244 PCT/US2005/000019

or a pharmaceutical acid addition salt thereof.

10

- 5 10. The compound of any one of claims 1-9 which is the hydrochloride salt.
 - 11. A method of treating endometriosis comprising administering to a patient in need thereof an effective amount of a compound of any one of claims 1-10.
 - 12. A method of treating uterine leiomyoma comprising administering to a patient in need thereof an effective amount of a compound of any one of claims 1-10.

- 13. A compound of any one of claims 1-10 for use in treating endometriosis and/or uterine leiomyoma.
- 14. A compound of formula II:

$$R^{2}$$
 $N-(CH_{2})_{m}$
 $R^{8}-O$
 $(R^{0})_{r}$
 $R^{8}-O$
 $(R^{0})_{r}$

wherein:

5

10

20

m and r are independently 0, 1 or 2;

q is 0 or 1;

s is 0, 1 or 2;

 $\ensuremath{\text{R}^0}$ is independently at each occurrence OH, CF3, halo, C1-C6 alkyl or C1-C6 alkoxy;

 R^1 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^4R^{4a} , CF_3 or CH_2CF_3 ;

 R^2 is H or methyl provided that if m is 1 or 2, then R^2 must be H and that if m is 0, then R^2 must be methyl;

 \mathbb{R}^8 is H, C₁-C₆ alkyl, benzyl, SO₂CH₃, SO₂(n-C₄-C₆ alkyl) or COR³;

 R^3 is C_1 - C_6 alkyl, C_1 - C_6 alkoxy, NR^6R^{6a} , phenoxy, or phenyl optionally substituted with halo;

 R^4 is C_1 - C_6 alkyl or phenyl;

 R^{4a} , R^6 and R^{6a} are independently at each occurrence H, C_1 - C_6 alkyl or phenyl;

 X^1 is O or NR^9 ;

Y is O or S; and

WO 2005/073244 PCT/US2005/000019

-43-

 R^9 is H, C_1 - C_6 alkyl or $CO_2(C_1$ - C_6 alkyl); provided that if s is 2, then R^8 is C_1 - C_6 alkyl, SO_2CH_3 or benzyl or R^9 is $CO_2(C_1$ - C_6 alkyl); or an acid addition salt thereof.

- 5 15. The compound of claim 14 wherein X^1 and Y are O and m is 1 or 2.
 - 16. The compound of claim 14 or 15 wherein r is 0.

10

15

- 17. The compound of any one of claims 14-16 wherein R⁸ is SO₂CH₃, benzyl or methyl.
 - 18. The compound of any one of claims 14-17 wherein m is 1.
- 19. The compound of any one of claims 14-18 wherein the SO_8R^1 moiety is at the 4-position.
 - 20. The compound of any one of claims 14-19 wherein R^1 is C_1 - C_4 alkyl, CF_3 or NR^4R^{4a} and R^4 is C_1 - C_4 alkyl and R^{4a} is H or C_1 - C_4 alkyl.
- 21. The compound of any one of claims 14-20 wherein R¹ is methyl, ethyl, cyclopropyl, CF₃, NHCH₃ or N(CH₃)₂.